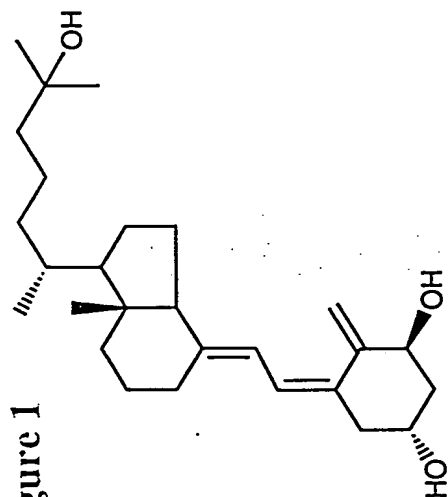
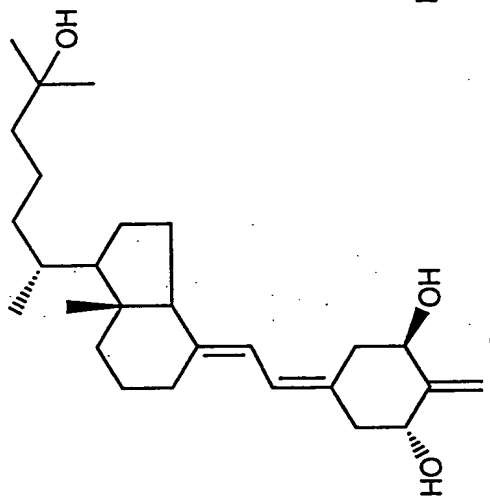


Figure 1



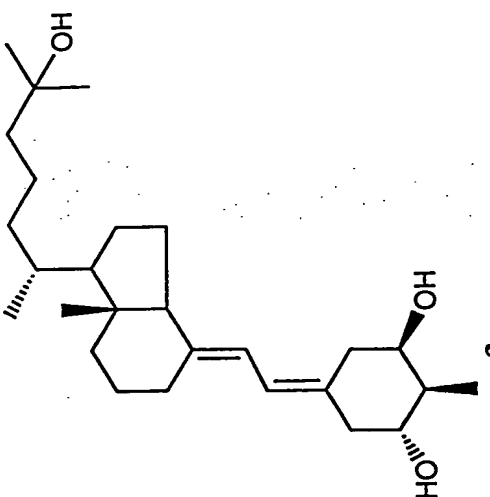
1

1 $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub>



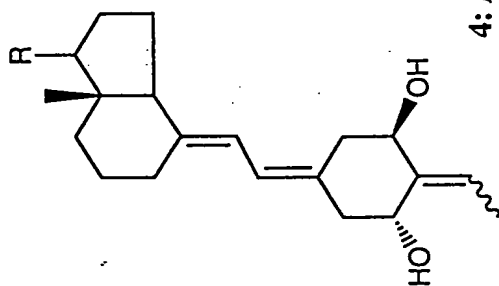
2

1 $\alpha$ ,25-dihydroxy-2-methylene-19-norvitamin D<sub>3</sub>



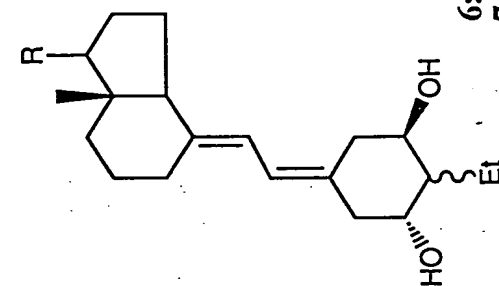
3

1 $\alpha$ ,25-dihydroxy-2 $\alpha$ -methyl-19-norvitamin D<sub>3</sub>



4: E - isomer

5: Z - isomer



6: 2 $\alpha$  - isomer

7: 2 $\beta$  - isomer

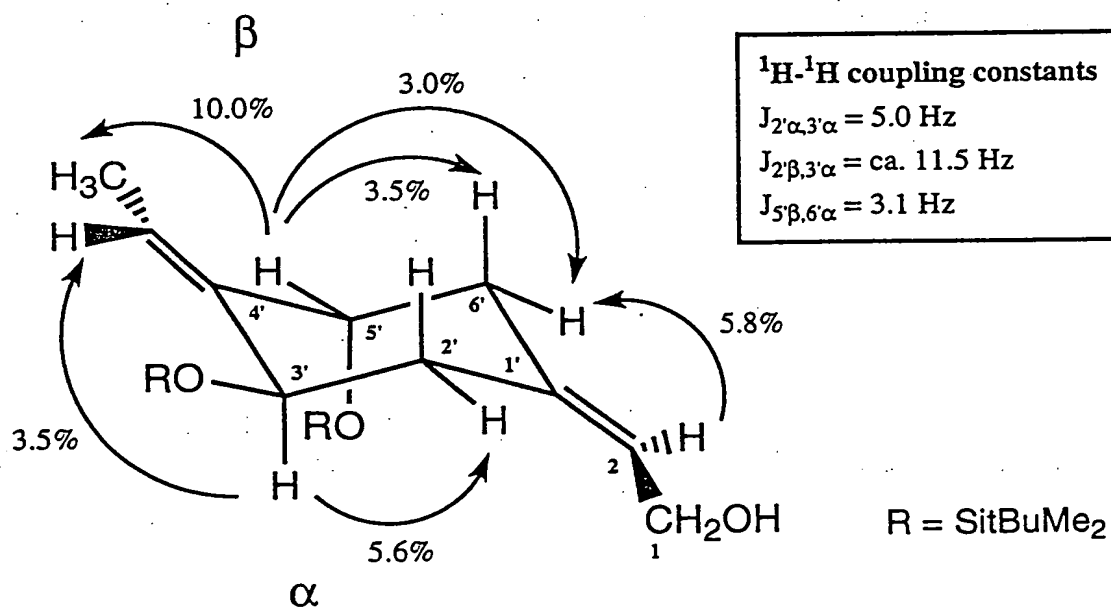
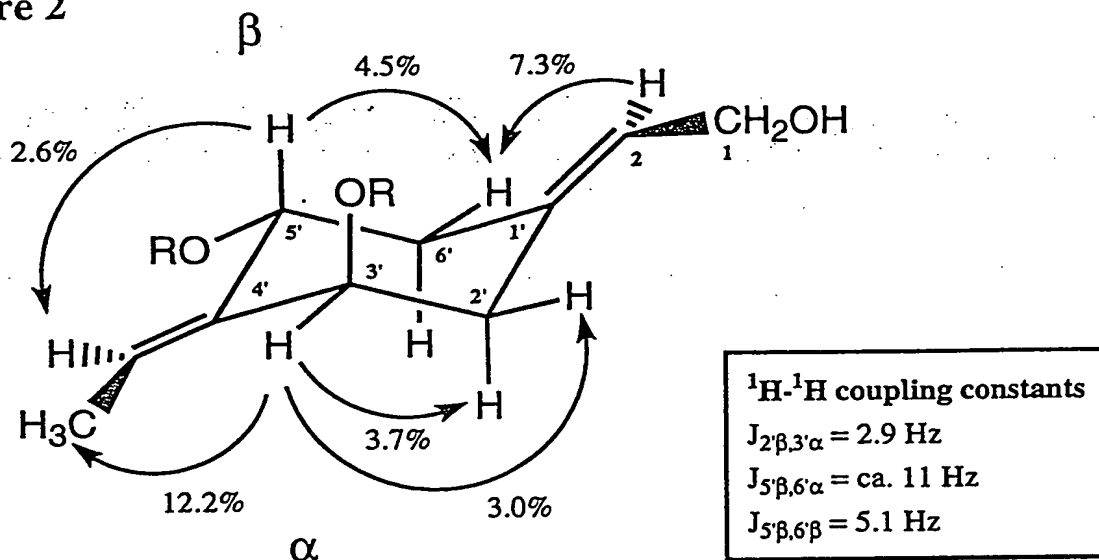


a) R =



b) R =

Figure 2



Configurations and preferred conformations of 4'-ethylidene compounds **16** and **17** were determined by analysis of their  $^1\text{H}$  NMR spectra and  $^1\text{H}$  NOE difference spectroscopy experiments

Figure 3

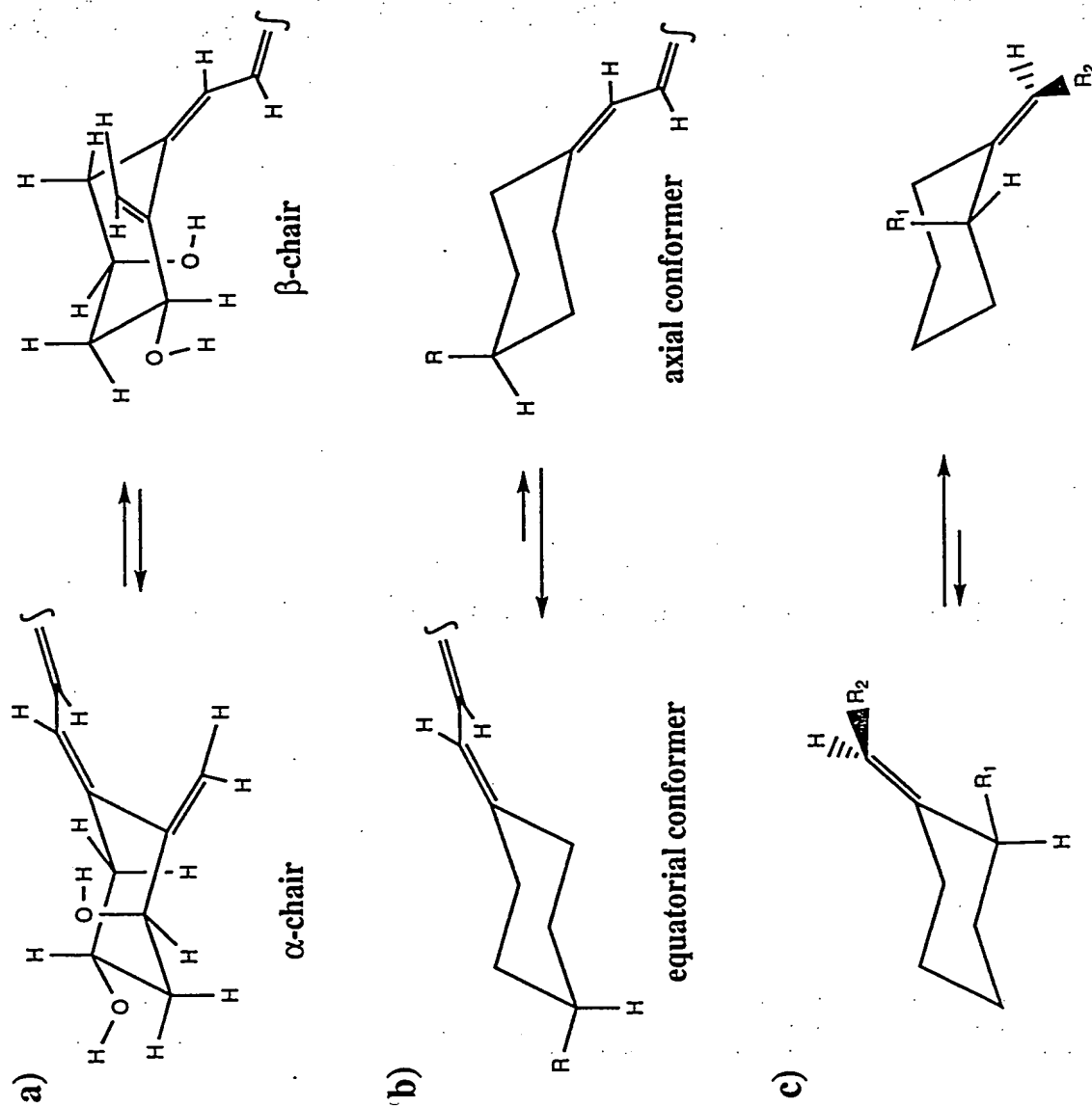


Figure 4

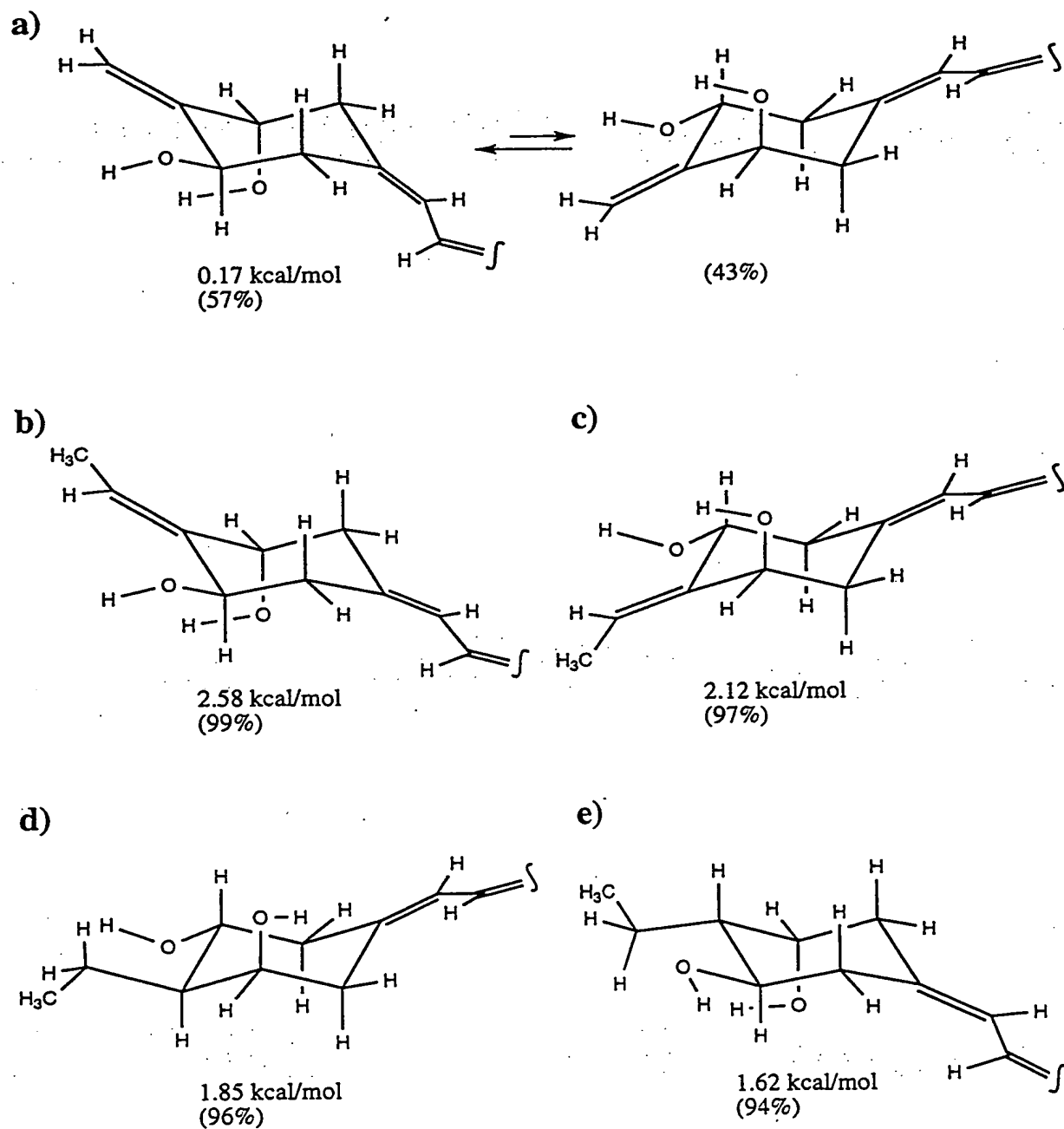


Figure 5 a)

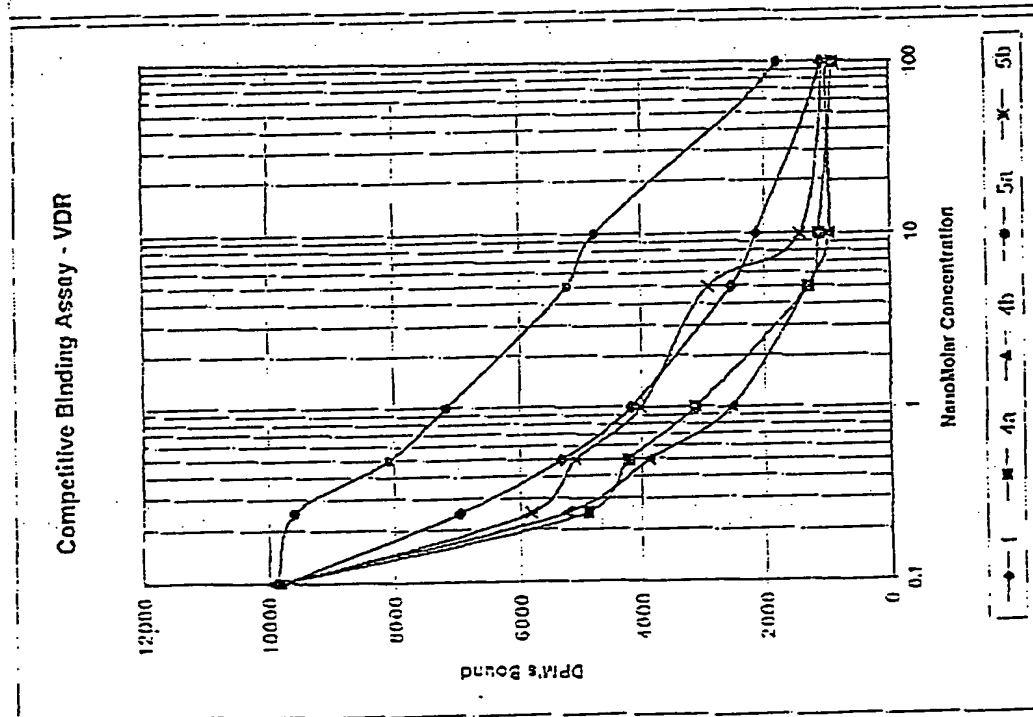


Figure 5 b)

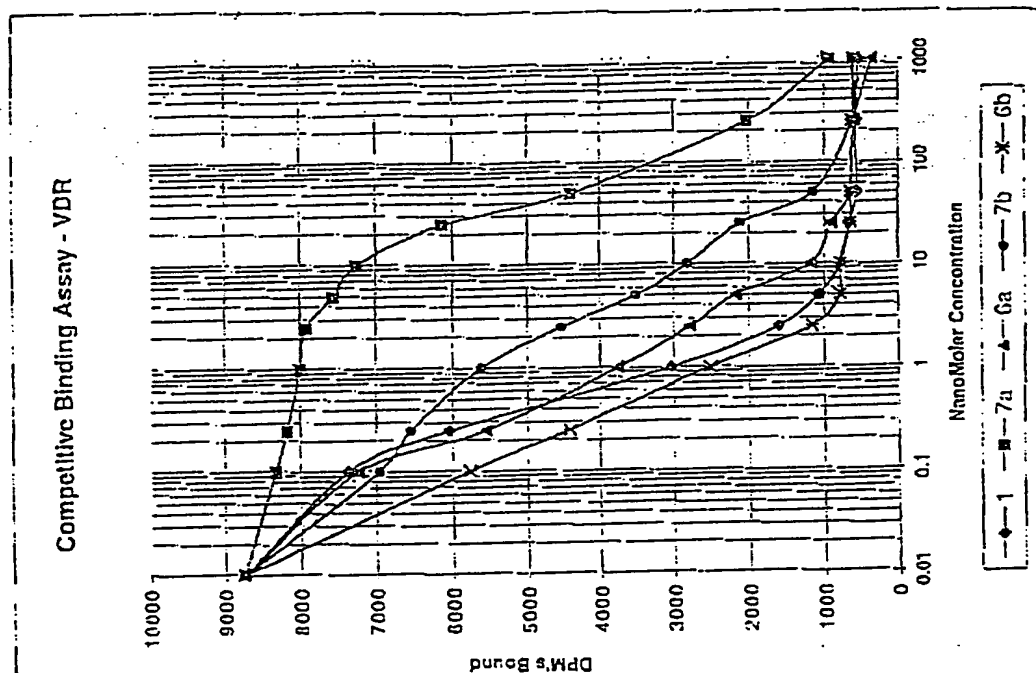


Figure 6 a)

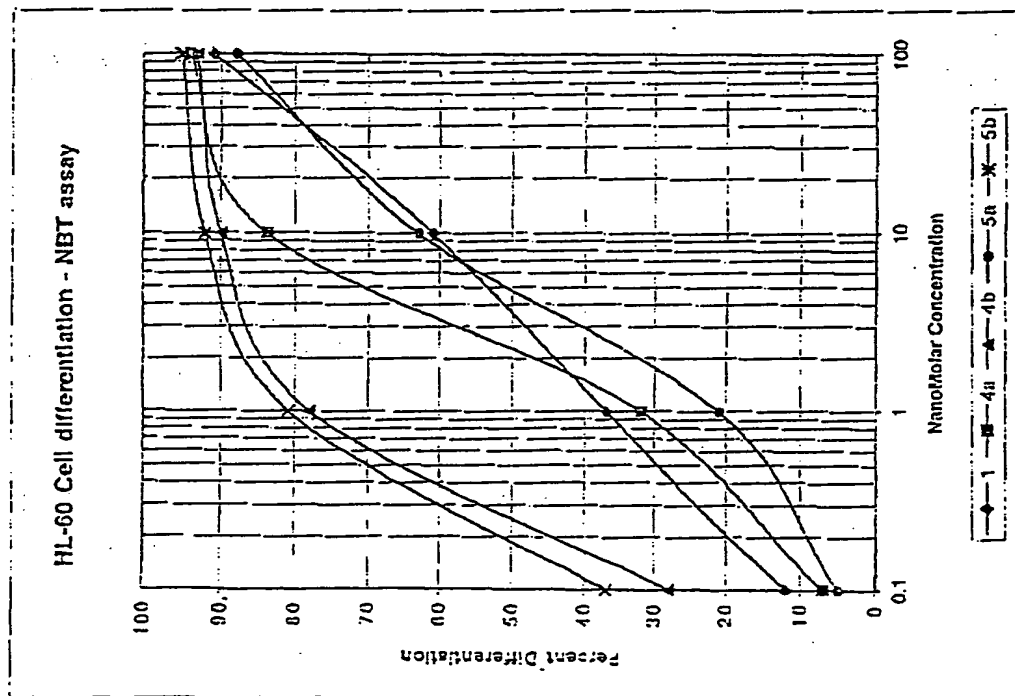


Figure 6 b)

